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Introduction

In the Cévennes mountains of the départements of Gard, Lozère and Ardèche in France there are many cols or natural passes where an abundance of insects may be encountered. In an earlier paper it was shown that 138 species of butterfly have been recorded in the National Park of the Cévennes; a region of outstanding natural beauty (Feltwell, 1977a).

The National Park is divided into two regions, the inner zone and the outer peripheral zone. In the inner zone there are 31 major cols; that is cols which are marked on the official Park Map (1:100,000. Parc National Des Cévennes, Institut Geographique National, obtainable in the U.K.). Other smaller cols do exist in the Park, but they do not appear on the official map.

The purpose of this paper is to present an entomological appraisal of the cols of the Park with respect to their suitability as study areas, especially for the future, and to note species encountered. The cols are rich in species and provide an ideal situation for the growth of enormous numbers of insects (cf. Feltwell, 1977b). There are also great areas of the Cévennes which are far from the mountain roads and from which records are lacking.

The Cévennes are fast becoming popular tourist areas and due to the tortuous nature of the mountain roads and the oppressive summer heat little progress can be made over long distances. Several cols are reached only by bad mountain roads and logging tracks, and for this reason some of the cols have been grouped together as they can be reasonably reached in one day. It is perhaps worth pointing out that a sturdy car with good ground clearance is an advantage along some of the bad tracks. Notices do state that the single lane tracks are not suitable for cars and that logging vehicles have priority. However, the tracks are ideal for walking and there are many well sign-posted *sentiers* over the mountains of the Parc. The first eleven cols are dealt with in this paper (Table 1) and accounts of 24 rhopalocean species are given.

1. Col de L'Homme Mort

The col is surrounded by a small plantation of Pine (*Pinus* sp.) which in a few years will obscure the view and presumably restrict the number of species of butterfly to be encountered. However, a few minutes away is a summit of massive boulders surmounted by open grass with Spanish Broom (*Spartium junceum* L.). On the day this col was visited only a solitary White Ermine Moth (*Spilosoma lubricipeda* (L.)) larva was found.

Although one can drive to the Col de L'Homme Mort on tarmac, a more rewarding way is to drive up the 10 km. track which leads up through the chestnut woods from the village of Alzon. At irregular intervals where the sun penetrates the

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track there was a wealth of flowers, always supporting a mass of butterflies which seemed to be trapped in these sunny glades. Those species observed and which were all abundant were Peacocks (*Inachis io* L.), Red Admirals (*Vanessa atalanta* L.), Marbled Whites (*Malanargia galathea* L.), and Silverwashed Fritillary (*Argynnis paphia* L.) many of which were busy courting each other, Spotted Fritillary (*Melitaea didyma* Esper), Large Skippers (*Ochlodes venatus* Bremer & Grey), while a solitary *Erebia* sp., a Small White (*Pieris rapae* L.), a Dryad (*Minois dryas* Scopoli), a Gatekeeper (*Pyronia tithonus* L.) and a pair of courting Scarce Coppers (*Heodes virgaureae* L.) were also seen.

2. Col de Portes

Another boulder summit, but this time rising out of an open wet grassland area rich in *S. junceum*, Heather (*Calluna vulgaris* L.), Rosebay Willowherb (*Epilobium angustifolium* L.) and tall grasses. Some young and old Pine plantations are present at a considerable distance. This col was visited at 1800 hrs. on an overcast day and the only insect visibly flying was a solitary trichopteran. However, the site looked potentially very good and would make an ideal place to site a U.V. lamp. The heather was producing a rich nectar flow and the flowers were covered with bees and bumble bees. A small shallow pond a few hundred metres away from the summit provided an intriguing place to search.

TABLE 1 ELEVEN COLS IN THE NATIONAL PARK OF THE CEVENNES (arranged in groups)

	Col	Size of collecting area around col (h)	Altitude (m)	Distance from tarmac (km)	Date visited
1. 2. 3.	Col de L'Homme Mort Col des Portes Col du Minier	2 40 <1	1,300 1,266 1,264	0 or 10 3.5 0	30.8.77 30.8.77 30.8.77
4. 5. 6.	Col de Faubel Col de la Serreyède Col de la Chaumette	16 20 4	1,285 1,455 1,455	0 0 3	22.8.77 22.8.77 22.8.77
7. 8. 9.	Col de Salpérière Col de Faisses Col du Rey	100 20 20	1,010 1,010 992	0 0 0	3.9.77 3.9.77 3.9.77
10. 11.	Col. de L'Oumenet Col de Finiels	100^+ 100^+	902 1,548	0 0	3.9.77 3.9.77

3. Col du Minier A minute col at the junction of three roads and four woodcutters tracks. It is completely enclosed by *Pinus* sp. and Larch (*Larix decidua* Mill.) and the roadside verges were supporting a strong growth of wild raspberry (*Rubus idaeus* L.), *L. salicaria* and white umbellifers. This is quite a busy through route and would not be expected to yield many butterflies beyond roadside visitors such as whites (*Pieris* spp.). 4. Col de Faubel

A small grass covered col enclosed by Beech (Fagus sp.) with three logging tracks leading away from it. There was a large pile of cut pine at the roadside and the verges were again abundant in R. *idaeus* and Thistles (*Cirsium* sp.). However, no insects were recorded here.

5. Col de la Serreyrède

This col has three main roads and two logging tracks leading away from it; one of them to the Col de la Chaumette. There is a large south-facing grass slope which on the wet day that it was visited only produced a Silver-spotted Skipper (*Hesperia comma* L.) and Cinnabar moth (*Tyria jacobaea* L.) larvae on the Ragwort (*Senecio* sp.), and some small day flying moths. Sweeping produced a multitude of leaf hoppers and small grasshoppers. There is also a north-facing grass slope which is backed by Pine plantations. 6. Col de la Chaumette

This is only accessible by a 3 km. logging track from the previous col or on an even longer track from Meyrueis. The col itself is fairly small but there are some interesting glades in amongst the Pine where the floor is a carpet of Plume and Wig Knapweeds (*Centaurea nervosa* Willd. and *C. phrygia* L. respectively), Chamois Ragwort (*Senecio doronicum* L.), Field Scabious (*Knautia arvensis* L.), Diamond-leaved Bellflower (*Campanulla rhomboidalis* L.) and Great Yellow Gentian (*Gentiana lutea* L.) and Tansy (*Chrysanthemum* sp.). On the day this col was visited it was overcast and drizzling. However, there was a super-abundance of flies, leaf hoppers and grasshoppers which were put up with every step and easily collected in the sweep net. Larvae of the Small Heath (*Coenonympha pamphilus* L.) and *P. tithonus* were identified.

The next three cols lie very close together on the same plateau (La Can de L'Hospitalet) above the Florac valley and share the same similar terrain and flora. Col de Salpérière and Col de Faisses do not have the customary Park signs which give the name and altitude of the cols and are thus easily passed. This is further confused by the construction of a new road which is re-routed to the west of Col du Rey and Col de Salpérière and fortunately leaves the latter col quite isolated.

The three cols are on sandstone and are characterised by having open grassland studded with small bushes of Box (Buxus sp.), Juniper (Juniperus sp.) and S. junceum, and patches of Pinus and Fagus sp. The open grassland had a good scattering of Flat-topped Carline Thistles (Carlina corymbosa) and Stemless Thistles (Cirsium acaulon L.). 7. Col de Salpérière

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Darting about in the long grass were many H. comma and single specimens were seen of the Grizzled Skipper (Pyrgus malvae L.), and Chalkhill Blue (Lysandra coridon Poda) and Silver-studded Blue (Plebejus argus L.), while Ephippiga grasshoppers were chirping in the bushes. Resting on a patch of grass was found a solitary yellow and black ascalaphid (Ascalaphus macaronius Scop.).

8. Col de Faisses

In one of the patches between the old and new roads (a distance of about 100 metres) were C. pamphilus, H. comma, the Large White (Pieris brassicae L.), and Ephippiga amongst the Cirsium sp., Dandelions (Taraxium sp.) and Sloe (Prunus spinosa L.).

9. Col du Rey

This is now a relatively quiet col with one of the three roads partially closed off as Route Barrée (hopefully this closed road will be left as a nature trail similar to the disused railway tracks in Britain). The col is straddled by farm buildings, with untidy verges supporting Nettle (Urtica dioica L.). Periwinkle (Vinca sp.), Corn Poppy (Papaver rhoeas L.) and Thistles (Cirsium sp.). Around the col there was also a small vegetable patch, a hectare of corn and a grassy slope on which were flying the Grayling (Hipparchia semele L.), P. brassicae, the Common Blue (Polyommatus icarus Rott.), L. coridon, Erebia sp. and many bumble bees. There also appeared to be a source of water at the col as there was a meadow of unusually rich green grass.

10. Col de L'Oumenet

A very open col which gives the impression of being very high (only 902 m.) with rolling slopes and good views (similar to Ashdown Forest, Sussex), supporting C. vulgaris and S. junceum. There were only two species of butterfly about and these were in great abundance, M. galathea and P. tithonus. 11. Col de Finiels

This is a tremendously wide open and exposed col, rather similar to a Scottish moor, dominated by the summit of Finiels (1,699 m.) which is about one kilometre away. There are some Pinus and Juniperus sp. near the col but predominantly there are tall grasses and thistles, E. angustifolium L., Pinks (Dianthus sp.), K. arvensis and Taraxium sp. Insects were surprisingly difficult to find and it was some time before a solitary Green-veined white (Pieris napi L.) flew by and a male Dark-green Fritillary (Mesoacidalia aglaja L.) was found flitting around the Pines. A few hundred metres down the road from the col a stand of Cirsium sp. had collected Small Tortoiseshells (Aglais urticae L.) and V. atalanta, while in a sheltered Sphagnum bog were single specimens of H. semele and C. pamphilus.

References

Feltwell, J. S. E. 1977a. Check list of the Rhopalocera of the Parc National des Cévennes. Ent. Gaz., 28: 85-97.
Feltwell, J. S. E. 1977b. Migration of Hipparchia semele L. J. Res. Lepid., 15: 83-91.